



COMMONWEALTH OF VIRGINIA
DEPARTMENT OF CONSERVATION
AND ECONOMIC DEVELOPMENT
DIVISION OF MINERAL RESOURCES

**VIRGINIA GRAVITY
BASE NET**

STANLEY S. JOHNSON AND
ROBERT E. ZIEGLER

INFORMATION CIRCULAR 17

VIRGINIA DIVISION OF MINERAL RESOURCES

James L. Calver
Commissioner of Mineral Resources and State Geologist

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VIRGINIA GRAVITY BASE NET

By

Stanley S. Johnson¹ and Robert E. Ziegler²

ABSTRACT

The Virginia Gravity Base Net, consisting of 58 adjusted gravity stations, has been established throughout Virginia. The Net was established with two LaCoste and Romberg Model G geodetic gravity meters. The Net is tied to the U. S. National Gravity Net stations at Dullas International Airport and at the Raleigh-Durham Airport. The gravity values derived are relative to the National Gravity Datum at Washington A which has a value of 980118.00 milligals. The statistical results of the adjustment indicate a mean standard propagated station error of $\pm .020$ milligal and an RMS error for a single observation of $\pm .016$ milligal.

GRAVITY BASE NET

As a part of the Division of Mineral Resources program to obtain geophysical data throughout Virginia, it became necessary to develop a network of internally consistent base stations that would fit into its over-all gravity program. The information derived from this network would aid the Division and other investigators in their efforts to obtain uniform data that could be tied to one gravity system (datum and scale) in the State.

The Division planned the current gravity base network in March, 1971 to consist of 58 stations (Figure 1, Appendix I) in Virginia which are easily accessible within a day's survey. The network includes gravity bases that the Division had used prior to 1971, without network adjustments, and new stations that were established in 1971 to complete an adequate network. The Virginia Gravity Base Net is tied to the U. S. National Gravity Base Net (USNGBN), thus further aid-

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ing regional investigators in their efforts to correct information to a uniform datum. This system is applicable in adjacent states as it is adjusted to the USNGBN (Schwimmer and Rice, 1969). The USNGBN will also be included in a forthcoming absolute world gravity net.

Three of the four bases in the Norfolk area were established in order that existing and future underwater gravity surveys could be tied to the Virginia network. The three stations selected had previously been utilized in the survey for the ocean gravity-meter test range that was established between Cape Charles and Wallops Island in 1965 (Orlin, Bassinger, and Gray, 1965). These stations are Dock stations 1 and 3 at the U. S. Dept. of Commerce, Norfolk Regional Office Building, and BM B 310 1952 at Ocean View.

Descriptions of the base stations in the Virginia network with pertinent facts are listed alphabetically in Appendix II. Figure 1 indicates the location and name of the stations in the Virginia Gravity Base Net.

Appreciation is given to Arthur S. Pearson and Palmer C. Sweet of the Division of Mineral Resources for making about 50 percent of the base ties, to the Gravity Surveys Branch of the U. S. Army Topographic Command for the loan of gravity meter number 46, and to Raul Beruff for assistance in many aspects of the survey.

Instrumentation and Field Procedures

The 58 base stations were established generally with two LaCoste and Romberg Model G geodetic gravity meters numbers 46 and 77. These meters have an operating range of more than 7000 milligals and a reading accuracy of $\pm .01$ milligal. The Virginia stations are tied to National base stations at Dulles International Airport (Washington R) and Raleigh-Durham Airport (Raleigh K), which, in turn, are relative to Washington A at the Commerce Building in Washington, D. C.

All observations were made utilizing the ladder-sequence loop technique. The stations are generally over bench marks; however, because of the condition of the mark or instrument set-up some were referenced and established near the mark. A valid observation consisted of the average field value that was obtained from two or three consecutive readings. Established horizontal control was utilized for

station coordinates where available; for all other stations latitude and longitude were scaled from 7.5-minute topographic maps.

Data Reduction and Adjustment

The computation, reduction, and adjustment of field data was done on a UNIVAC 1108 computer by utilizing program GRASS at the U. S. Army Topographic Command, Department of Geodesy and Geophysics, Gravity Surveys Branch, Washington, D. C. The adjustment was completed on December 9, 1971. Each gravity observation was corrected for the manufacturer's calibration. The observations obtained with meter 46 were scaled by a factor of 1.00088. This factor for meter 46 was determined by observations on the American Calibration Line in August, 1963. Theoretical earth-tide corrections, including an elasticity factor of 1.2 were computed and applied to each observation. A linear, least square drift solution based on re-occupations was determined and applied for each loop. Two loops contained 0.1 milligal tares for which redundant observations were present, thus enabling corrections to be applied.

A least squares network adjustment of the observation-equation type was utilized in order to obtain corrections for the observations, thus deriving the "best estimate" of the station gravity values. Datum and scale conditions are imposed on the adjustment by holding stationary (fixed) the values of stations Washington R (980092.16 mgal) and Raleigh K (979801.00 mgal). These two stations are U. S. National Gravity Base Net stations based on a value for Washington A of 980118.00 milligals.

The covariance matrix from the adjustment furnished statistical data that reflected the quality of the observations and the geometry (method of ties between stations) of the network. The root mean square (RMS) or standard (67 percent confidence level) error of a single observation was $\pm .016$ milligal. Propagated standard errors of those stations relative to the fixed stations are given with the adjusted station values in appendices I and II. The mean of the propagated errors of all stations is $\pm .020$ milligal and the maximum is $\pm .033$ milligal.

Derived corrections to the scales of LaCoste and Romberg meters 46 and 77 and their uncertainties are $.000028 \pm .000094$ and $.000713 \pm .000084$, respectively. These scale-factor corrections, when converted to milligals for the 291-milligal range between Washington R and

Raleigh K are .008 milligal for meter 46 and .207 milligal for meter 77. Since the only known scale-factor for meter 77 was determined by the manufacturer over a 100-milligal range with a limited number of observations, this correction is reasonable. Two observations were deleted for residual exceeding $\pm .051$ milligal.

A summary of the adjustment follows:

a. Number of stations (plus fixed bases)	60
b. Number of loops	62
c. Number of observations	355
d. RMS error of a single observation	$\pm .016$ mgal
e. Mean standard propagated station error	$\pm .020$ mgal
f. Maximum standard propagated station error	$\pm .033$ mgal

Corrections to gravimeter scales are:

a. LaCoste and Romberg geodetic meter 46	.000028 \pm .000094
b. LaCoste and Romberg geodetic meter 77	.000713 \pm .000084

The Bouguer anomaly values are based on a density of 2.67 g/cm³ and were computed by the Division of Mineral Resources, utilizing program GRAVAS on a Burroughs 5500 computer at the Computer Science Center, University of Virginia, Charlottesville.

REFERENCES

- Orlin, H., Bassinger, B. C., and Gray, C. H., 1965, Gravity equipment evaluation range Cape Charles-Wallops Island, Virginia: U. S. Coast and Geod. Survey and U. S. Naval Oceanog. Office, 24 p.
- Schwimmer, P. M., and Rice, D. A., 1969, United States National Gravity Base Net: Am. Geophys. Union Trans., vol. 50, p. 527.

APPENDIX I: PRINCIPAL FACTS FOR GRAVITY BASE STATIONS

STATION NAME	LATITUDE N	LONGITUDE W	ELEVATION OF METER (FEET)	ADJ OBS GRAVITY (MGAL)	UNCER- TAINTY (MGAL)	FREE AIR (MGAL)	BOUGUER (MGAL)
ABINGDON	36 43 01	81 57 17	2076.390	979702.89	.03	5.71	-65.11
APPOMATTOX	37 22 24	78 49 00	829.608	979916.94	.01	45.60	17.31
ASHLAND	37 45 30	77 28 45	219.482	979973.89	.02	11.58	4.10
BEDFORD	37 20 03	79 31 23	1016.653	979835.66	.01	-14.71	-49.38
BIG FORK	36 40 17	78 12 48	323.364	979855.40	.01	-2.73	-13.75
BLACKSTONE	37 04 47	77 59 56	427.329	979912.70	.02	29.02	14.44
CENTREVILLE	38 50 17	77 25 34	399.176	980086.60	.01	46.48	32.87
CHARLOTTE C.H.	37 03 54	78 37 59	583.019	979904.87	.01	37.09	17.20
CHARLOTTESVILLE	38 02 07	78 30 57	594.018	979933.60	.01	-17.69	-37.95
CHATHAM	36 49 17	79 23 08	704.034	979838.72	.02	3.42	-20.59
CHESTERFIELD	37 22 34	77 30 25	209.652	979929.27	.02	-0.65	-7.81
CHRISTIANSBURG	37 07 47	80 24 32	2088.726	979726.97	.02	-4.79	-76.05
CLARKSVILLE	36 37 26	78 33 29	358.628	979877.84	.01	27.11	14.88
CLAYPOOL HILL	37 03 46	81 45 08	2351.360	979720.79	.03	19.54	-60.66
CLIFTON FORGE	37 49 01	79 49 33	1079.276	979846.83	.02	-39.73	-76.54
CUMBERLAND	37 30 18	78 14 23	455.964	979944.48	.01	26.53	10.97
DILLWYN	37 32 31	78 27 14	650.000	979940.43	.02	37.50	15.30
EASTVILLE	37 21 12	75 56 48	28.028	979921.16	.02	-23.87	-24.83
EASTVILLE B	37 21 12	75 56 48	30.028	979920.97	.02	-23.90	-24.90
EMPORIA	36 41 12	77 32 33	118.773	979900.40	.02	21.69	17.64
FARMVILLE	37 17 30	78 23 54	399.708	979932.90	.01	28.21	14.57
FIGSBORO	36 45 36	79 53 02	1048.233	979781.52	.02	-16.09	-51.84
FLOYD	36 54 40	80 19 13	2496.021	979702.13	.03	27.63	-57.51
FREDERICKSBURG	38 18 05	77 27 34	59.764	980028.00	.02	3.14	1.10
FRONT ROYAL	38 52 54	78 09 43	866.117	979976.14	.03	-23.91	-53.45
GATE CITY	36 38 09	82 34 53	1303.603	979745.19	.03	-17.67	-62.13
GLOUCESTER	37 23 56	76 31 19	78.391	979952.34	.02	8.09	5.42
GRUNDY	37 16 40	82 05 57	1049.808	979820.45	.03	-21.90	-57.70
HARRISONBURG	38 26 48	78 51 34	1450.414	979900.14	.02	-6.67	-56.14
HILLSVILLE	36 45 58	80 44 12	2564.933	979660.44	.03	4.96	-82.52
LANCASTER	37 46 10	76 27 52	88.519	979969.58	.02	-6.03	-9.04
LEESBURG	39 05 47	77 34 50	357.886	980087.26	.02	20.48	8.27
LEXINGTON	37 47 06	79 26 43	1056.147	979862.50	.01	-23.44	-59.46
MARION	36 50 07	81 30 49	2205.914	979690.95	.03	-4.28	-79.51
MARTINSVILLE	36 41 27	79 52 25	1014.243	979781.60	.02	-13.23	-47.82
MELFA	37 38 58	75 44 30	50.774	979958.78	.03	-9.89	-11.62
MONTEREY	38 24 43	79 34 45	2881.421	979795.33	.02	26.17	-72.10
NORFOLK A.P.	36 53 43	76 12 17	26.000	979877.97	.02	-27.51	-28.39
NORFOLK DOCK 1	36 51 11	76 17 54	5.000	979873.34	.02	-30.44	-30.61
NORFOLK DOCK 3	36 51 10	76 17 55	5.000	979873.21	.02	-30.56	-30.73
NORTON	36 56 06	82 37 44	2141.311	979725.87	.03	15.94	-57.10
OCEAN VIEW	36 57 18	76 15 11	12.865	979887.82	.02	-24.05	-24.49
PAMPLIN	37 15 44	78 40 55	491.000	979910.82	.02	17.30	0.50
PEARISBURG	37 19 36	80 44 06	1804.403	979768.78	.02	-6.83	-68.38
PENNINGTON GAP	36 45 38	83 00 44	1383.422	979760.03	.03	-6.10	-53.28
RICHMOND	37 30 28	77 19 57	172.010	979952.35	.02	7.42	1.55
SALEM	37 17 48	80 03 22	1097.173	979803.95	.02	-35.58	-73.00
SOUTH BOSTON	36 41 55	78 54 04	407.190	979875.12	.01	22.52	8.63
STAUNTON	38 08 55	79 04 21	1384.380	979873.84	.02	-13.06	-60.28
ST. PAUL	36 54 15	82 18 41	1488.022	979754.34	.03	-14.38	-65.13
STRASBURG	38 59 56	78 20 56	711.829	979987.79	.02	-37.10	-61.38
SUFFOLK	36 43 47	76 34 58	53.550	979877.38	.02	-11.17	-13.00
TAPPAHANNOCK	37 55 43	76 51 40	22.250	980014.29	.02	18.55	17.79
WALLOPS	37 56 04	75 28 26	35.092	979972.45	.03	-22.69	-23.79
WARRENTON	38 41 06	77 48 17	634.858	980042.24	.02	37.77	16.12
WILLIAMSBURG	37 16 35	76 42 31	77.653	979927.61	.02	-6.05	-8.70
WINCHESTER	39 09 28	78 11 10	755.576	979998.22	.03	-36.58	-62.35
WYTHEVILLE	36 56 58	81 05 00	2298.896	979700.86	.03	4.50	-73.91

APPENDIX II

Gravity Base Station Descriptions

Station name: ABINGDON	*AOGV: 979702.89 \pm .03 mgal
Station number: 25-B-2	Bouguer value: -65.11 mgal
Quadrangle: Abingdon 7.5	Free air value: 5.71 mgal
BM designation: L 376 1959	Latitude: 36°43'01"N
Elevation of BM: 2076.390 ft	Longitude: 81°57'17"W
Elevation of meter: 2076.390 ft	Date base established: 3/31/71

Station description: *Virginia Department of Highways Residence Office*, about 1.1 miles NE along U. S. highways 11 and 58 from the courthouse in Abingdon on the SE side of the highway, over BM in concrete steps leading to basement at the north end of the office building.

Station name: APPOMATTOX	AOGV: 979916.94 \pm .01 mgal
Station number: 105-D-1	Bouguer value: 17.31 mgal
Quadrangle: Appomattox 7.5	Free air value: 45.60 mgal
BM designation: 34 JWM 1956	Latitude: 37°22'24"N
Elevation of BM: 829.608 ft	Longitude: 78°49'00"W
Elevation of meter: 829.608 ft	Date base established: 6/13/68

Station description: About 0.6 mile NE of Appomattox, off the east side of State Highway 24, in Appomattox Court House National Historical Park, north of the parking area for Grant's Headquarters on BM under a locust tree.

Station name: ASHLAND	AOGV: 979973.89 \pm .02 mgal
Station number: 149-C-1	Bouguer value: 4.10 mgal
Quadrangle: Ashland 7.5	Free air value: 11.58 mgal
BM designation: K 388 1960	Latitude: 37°45'30"N
Elevation of BM: 220.882 ft	Longitude: 77°28'45"W
Elevation of meter: 219.482 ft	Date base established: 3/18/71

Station description: *Ashland Post Office*, about 0.4 mile west along State Highway 54 from its intersection with U. S. Highway 1 in Ashland, off the west side of Maple Street on the edge of east concrete walk, directly in line with BM set vertically in SE corner of PO about three feet north of the north end of steps to loading platform.

Station name: BEDFORD	AOGV: 979835.66 \pm .01 mgal
Station number: 108-D-1	Bouguer value: -49.38 mgal
Quadrangle: Bedford 7.5	Free air value: -14.71 mgal
BM designation: TT 2MS 1946	Latitude: 37°20'03"N
Elevation of BM: 1016.653 ft	Longitude: 79°31'23"W
Elevation of meter: 1016.653 ft	Date base established: 3/11/71

Station description: *Bedford Post Office*, off the north side of Main Street in Bedford over BM in concrete curb about 11 feet east of the front entrance steps.

*As used for each station, AOGV means *adjusted observed gravity value*.

Station name: BIG FORK	AOGV: 979855.40 \pm .01 mgal
Station number: 10-B-1	Bouguer value: -13.75 mgal
Quadrangle: South Hill 7.5	Free air value: -2.73 mgal
BM designation: 71 SKS 1954	Latitude: 36°40'17"N
Elevation of BM: 323.364 ft	Longitude: 78°12'48"W
Elevation of meter: 323.364 ft	Date base established: 8/28/69

Station description: About 6 miles SW of South Hill, at the intersection of U. S. highways 1 and 58 at Big Fork, in grass triangle, on BM about 4 feet NW of granite monument.

Station name: BLACKSTONE	AOGV: 979912.70 \pm .02 mgal
Station number: 71-C-1	Bouguer value: 14.44 mgal
Quadrangle: Blackstone East 7.5	Free air value: 29.02 mgal
BM designation: Blackstone 1935	Latitude: 37°04'47"N
Elevation of BM: 427.329 ft	Longitude: 77°59'56"W
Elevation of meter: 427.329 ft	Date base established: 8/28/69

Station description: *Blackstone Municipal Building*, off the north side of West Elm Street about one block west of its intersection with South Main Street (U. S. Highway 460 and State Highway 40) in Blackstone, over BM in brick porch about 1.5 feet east of the east entrance door.

Station name: CENTREVILLE	AOGV: 980086.60 \pm .01 mgal
Station number: 205-C-1	Bouguer value: 32.87 mgal
Quadrangle: Manassas 7.5	Free air value: 46.48 mgal
BM designation: Centreville 2 1958, No. 5 1969	Latitude: 38°50'17"N
Elevation of BM: 399.176 ft	Longitude: 77°25'34"W
Elevation of meter: 399.176 ft	Date base established: 3/23/71

Station description: *Centreville School*, about 0.1 mile SE alone State Road 620 from its intersection with U. S. highways 29 and 211 at Centreville, on BM about 32 feet north of the NE end of the school about 4.5 feet above the pavement of a narrow access road on the north side of the school and NE of a retaining wall.

Station Name: CHARLOTTE COURT HOUSE	AOGV: 979904.87 \pm .01 mgal
Station number: 74-C-1	Bouguer value: 17.20 mgal
Quadrangle: Charlotte Court House 7.5	Free air value: 37.09 mgal
BM designation: 65 SKS 1954	Latitude: 37°03'54"N
Elevation of BM: 583.019 ft	Longitude: 78°37'59"W
Elevation of meter: 583.019 ft	Date base established: 6/13/68

Station description: At the intersection of State Highway 47 and State Road 709 at Charlotte Court House, about 96 feet north of the intersection, on BM about 3 feet from power pole.

Station name: CHARLOTTESVILLE	AOGV: 979933.60 \pm .01 mgal
Station number: 174-D-1	Bouguer value: -37.95 mgal
Quadrangle: Charlottesville West 7.5	Free air value: -17.69 mgal
BM designation: 106 MLS 1963	Latitude: 38°02'07"N
Elevation of BM: 594.018 ft	Longitude: 78°30'57"W
Elevation of meter: 594.018 ft	Date base established: 12/15/65

Station description: *Natural Resources Building*, off the north side of McCormick Road just west of its intersection with Alderman Road in Charlottesville, Division of Mineral Resources entrance, on the east side of front entrance doors over BM in concrete slab.

Station name: CHATHAM	AOGV: 979838.72 \pm .02 mgal
Station number: 47-C-1	Bouguer value: -20.59 mgal
Quadrangle: Chatham 7.5	Free air value: 3.42 mgal
BM designation: Chatham Hall 1941	Latitude: 36°49'17"N
Elevation of BM: 704.034 ft	Longitude: 79°23'08"W
Elevation of meter: 704.034 ft	Date base established: 5/28/70

Station description: About 0.6 mile east along State Road 832 from the intersection with U. S. Highway 29 in Chatham on the north side of State Road 832 on concrete post at corner of fence. The BM is about 0.1 mile west of the intersection of State Road 832 and the U. S. Highway 29 By-pass east of Chatham.

Station name: CHESTERFIELD	AOGV: 979929.27 \pm .02 mgal
Station number: 100-A-1	Bouguer value: -7.81 mgal
Quadrangle: Chesterfield 7.5	Free air value: -0.65 mgal
BM designation: R 245 1942	Latitude: 37°22'34"N
Elevation of BM: 209.652 ft	Longitude: 77°30'25"W
Elevation of meter: 209.652 ft	Date base established: 4/5/71

Station description: *Chesterfield County Courthouse*, about 0.1 mile east along State Highway 10 from its intersection with State Road 655 in Chesterfield, about 80 feet east of the SE corner of the courthouse, over BM in concrete base of the Soldiers Monument, about 5 feet south of the south face.

Station name: CHRISTIANSBURG	AOGV: 979726.97 \pm .02 mgal
Station number: 81-B-2	Bouguer value: -76.05 mgal
Quadrangle: Blacksburg 7.5	Free air value: -4.79 mgal
BM designation: TT Sta No. 70 D 1930, Reset 1934	Latitude: 37°07'47"N
Elevation of BM: 2088.726 ft	Longitude: 80°24'32"W
Elevation of meter: 2088.726 ft	Date base established: 3/25/71

Station description: *Montgomery County Courthouse*, at the intersection of U. S. Highway 11 (Main Street) and Franklin Street in Christiansburg, near the front of the courthouse, 3 feet SE of the SE curb of Main Street, over BM in sidewalk, about 33 feet WSW of the center of the NW (main) entrance to the courthouse.

Station name: CLARKSVILLE	AOGV: 979877.84 \pm .01 mgal
Station number: 12-D-1	Bouguer value: 14.88 mgal
Quadrangle: Clarksville 7.5	Free air value: 27.11 mgal
BM designation: P 30 1932	Latitude: 36°37'26"N
Elevation of BM: 358.628 ft	Longitude: 78°33'29"W
Elevation of meter: 358.628 ft	Date base established: 8/28/69

Station description: At the intersection of U. S. Highway 58 and Street 1102 in Clarksville, over BM in rock post at corner.

Station name: CLAYPOOL HILL	AOGV: 979720.79 \pm .03 mgal
Station number: 87-D-2	Bouguer value: -60.66 mgal
Quadrangle: Richlands 7.5	Free air value: 19.54 mgal
BM designation: Gap Azi 1963	Latitude: 37°03'46"N
Elevation of BM: 2351.360 ft	Longitude: 81°45'08"W
Elevation of meter: 2351.360 ft	Date base established: 3/30/71

Station description: At the intersection of U. S. highways 19 and 460 at Claypool Hill, over BM in the west end of the east triangular median of U. S. Highway 460, just west of the intersection with U. S. Highway 19.

Station name: CLIFTON FORGE	AOGV: 979846.83 \pm .02 mgal
Station number: 159-D-1	Bouguer value: -76.54 mgal
Quadrangle: Clifton Forge 7.5	Free air value: -39.73 mgal
BM designation: J 14 1928	Latitude: 37°49'01"N
Elevation of BM: 1079.276 ft	Longitude: 79°49'33"W
Elevation of meter: 1079.276 ft	Date base established: 12/30/70

Station description: *Clifton Forge Post Office*, at the intersection of State Highway 188 and Church Street in Clifton Forge, over BM in the NE end of the granite coping about 7 feet NE of the center of entrance doors.

Station name: CUMBERLAND	AOGV: 979944.48 \pm .01 mgal
Station number: 129-C-1	Bouguer value: 10.97 mgal
Quadrangle: Whiteville 7.5	Free air value: 26.53 mgal
BM designation: 32 MEA 1967	Latitude: 37°30'18"N
Elevation of BM: 455.964 ft	Longitude: 78°14'23"W
Elevation of meter: 455.964 ft	Date base established: 6/13/68

Station description: About 0.6 mile NE of Cumberland, at the intersection of U. S. Highway 60 and State Road 622, off the east side of State Road 622 on BM in fence corner.

Station name: DILLWYN	AOGV: 979940.43 \pm .02 mgal
Station number: None	Bouguer value: 15.3 mgal
Quadrangle: Dillwyn 7.5	Free air value: 37.5 mgal
BM designation: None	Latitude: 37°32'31"N
Elevation of BM: None	Longitude: 78°27'14"W
Elevation of meter: 650 ft	Date base established: 8/28/69

Station description: *Virginia National Bank*, about 0.1 mile south along State Road 629 from its intersection with U. S. Highway 15 in Dillwyn, on concrete walk, 2 feet NW of the front entrance and 1 foot west of the wall.

Station name: EASTVILLE	AOGV: 979921.16 \pm .02 mgal
Station number: 93-C-1A	Bouguer value: -24.83 mgal
Quadrangle: Cheriton 7.5	Free air value: -23.87 mgal
BM designation: R 45	Latitude: 37°21'12"N
Elevation of BM: 28.028 ft	Longitude: 75°56'48"W
Elevation of meter: 28.028 ft	Date base established: 5/4/70

Station description: *Northampton County Courthouse*, off the NW side of U. S. Highway 13 (Bus.) in Eastville on BM in the NE corner of the county courthouse yard, about 123 feet NE of the NE corner of the courthouse and 33 feet west of the center line of U. S. Highway 13.

Station name: EASTVILLE B	AOGV: 979920.97 \pm .02 mgal
Station number: 93-C-1B	Bouguer value: -24.9 mgal
Quadrangle: Cheriton 7.5	Free air value: -23.9 mgal
BM designation: None	Latitude: 37°21'12"N
Elevation of BM: None	Longitude: 75°56'48"W
Elevation of meter: 30.028 ft	Date base established: 5/4/70

Station description: *Northampton County Courthouse*, off the NW side of U. S. Highway 13 (Bus.) in Eastville, on concrete porch 3 feet NE of the front entrance door and 1 foot SE of the wall.

Station name: EMPORIA	AOGV: 979900.40 \pm .02 mgal
Station number: 8-A-1	Bouguer value: 17.64 mgal
Quadrangle: Emporia 7.5	Free air value: 21.69 mgal
BM designation: T 70 1935	Latitude: 36°41'12"N
Elevation of BM: 118.773 ft	Longitude: 77°32'33"W
Elevation of meter: 118.773 ft	Date base established: 4/5/71

Station description: *Greensville County Courthouse*, off the east side of U. S. Highway 301 in Emporia, on BM about 48 feet WSW of the NW corner of the building, about 5 feet north of the north edge of the west entrance sidewalk.

Station name: FARMVILLE	AOGV: 979932.90 \pm .01 mgal
Station number: 103-C-2	Bouguer value: 14.57 mgal
Quadrangle: Farmville 7.5	Free air value: 28.21 mgal
BM designation: Farmville 1941	Latitude: 37°17'30"N
Elevation of BM: 399.708 ft	Longitude: 78°23'54"W
Elevation of meter: 399.708 ft	Date base established: 6/13/68

Station description: *Robert Moton School*, about 0.1 mile north of the intersection of U. S. Highway 15 and Ely Street in Farmville, off the east side of Ely Street, on BM at the NW corner of the school yard, 72 feet west of the NW corner of the school.

Station name: FIGSBORO	AOGV: 979781.52 \pm .02 mgal
Station number: 49-C-1	Bouguer value: -51.84 mgal
Quadrangle: Bassett 7.5	Free air value: -16.09 mgal
BM designation: ET 28 MAX 1963	Latitude: 36°45'36"N
Elevation of BM: 1048.233 ft	Longitude: 79°53'02"W
Elevation of meter: 1048.233 ft	Date base established: 8/13/70

Station description: *Church of Christ*, about 2.2 miles SW of Figsboro, off the north side of State Road 897, about 0.1 mile west of its intersection with State Highway 108, over BM in bottom step of the north entrance to church.

Station name: FLOYD	AOGV: 979702.13 \pm .03 mgal
Station number: 51-A-1	Bouguer value: -57.51 mgal
Quadrangle: Floyd 7.5	Free air value: 27.63 mgal
BM designation: 22 RHP 1956	Latitude: 36°54'40"N
Elevation of BM: 2496.021 ft	Longitude: 80°19'13"W
Elevation of meter: 2496.021 ft	Date base established 3/25/71

Station description: *Floyd County Courthouse*, at the intersection of U. S. Highway 221 and State Highway 8 in Floyd, on BM about 1 foot west of the west end of bottom step at the south entrance.

Station name: FREDERICKSBURG	AOGV: 980028.00 \pm .02 mgal
Station number: 182-C-1	Bouguer value: 1.10 mgal
Quadrangle: Fredericksburg 7.5	Free air value: 3.14 mgal
BM designation: C 1 1926	Latitude: 38°18'05"N
Elevation of BM: 59.764 ft	Longitude: 77°27'34"W
Elevation of meter: 59.764 ft	Date base established: 3/17/71

Station description: *Fredericksburg Post Office*, off the NE side of Princess Anne Street in Fredericksburg, over BM in granite at the north end of the portico facing Princess Anne Street, and between the north pillar and wall.

Station name: FRONT ROYAL	AOGV: 979976.14 \pm .03 mgal
Station number: 208-B-4	Bouguer value: -53.45 mgal
Quadrangle: Front Royal 7.5	Free air value: -23.91 mgal
BM designation: P 246 1942	Latitude: 38°52'54"N
Elevation of BM: 866.117 ft	Longitude: 78°09'43"W
Elevation of meter: 866.117 ft	Date base established: 11/5/70

Station description: About 3.2 miles SE of Front Royal on the SW side of U. S. Highway 522, just SE of a picnic area, over BM in rock outcrop at wire fence.

Station name: GATE CITY	AOGV: 979745.19 \pm .03 mgal
Station number: 28-A-1	Bouguer value: -62.13 mgal
Quadrangle: Gate City 7.5	Free air value: -17.67 mgal
BM designation: Q 22 1930	Latitude: 36°38'09"N
Elevation of BM: 1303.603 ft	Longitude: 82°34'53"W
Elevation of meter: 1303.603 ft	Date base established: 3/31/71

Station description: *Southern Railway Station*, on concrete post, about 106 feet NE of the NE corner of station in Gate City, on BM near two tool sheds and about 15 feet north of the north rail.

Station name: GLOUCESTER	AOGV: 979952.34 \pm .02 mgal
Station number: 96-A-1	Bouguer value: 5.42 mgal
Quadrangle: Gloucester 7.5	Free air value: 8.09 mgal
BM designation: N 267 1942	Latitude: 37°23'56"N
Elevation of BM: 78.291 ft	Longitude: 76°31'19"W
Elevation of meter: 78.391 ft	Date base established: 3/18/71

Station description: *Kingdom Hall Church*, about 0.1 mile SW along U. S. Highway 17 from its intersection with State Road 629 just SE of Gloucester, on the NW side of U. S. Highway 17, on BM in front yard of church.

Station name: GRUNDY	AOGV: 979820.45 \pm .03 mgal
Station number: 118-D-1	Bouguer value: -57.70 mgal
Quadrangle: Grundy 7.5	Free air value: -21.90 mgal
BM designation: 1050	Latitude: 37°16'40"N
Elevation of BM: 1049.808 ft	Longitude: 82°05'57"W
Elevation of meter: 1049.808 ft	Date base established: 4/1/71

Station description: *Buchanan County Courthouse*, on the east side of U. S. Highway 460 and State Highway 83 in Grundy (Main Street), about 0.1 mile south of the bridge over Slate Creek, over BM in the north edge of the top step of front entrance.

Station name: HARRISONBURG	AOGV: 979900.14 \pm .02 mgal
Station number: 188-A-7	Bouguer value: -56.14 mgal
Quadrangle: Harrisonburg 7.5	Free air value: -6.67 mgal
BM designation: Harisonburg 1933	Latitude: 38°26'48"N
Elevation of BM: 1450.414 ft	Longitude: 78°51'34"W
Elevation of meter: 1450.414 ft	Date base established: 12/17/69

Station description: *Virginia Department of Agriculture Building*, off the NE side of Reservoir Street about 0.15 mile SE of its intersection with U. S. Highway 33 in Harrisonburg, about 70 feet NW of the NW corner of building on BM in playground area.

Station name: HILLSVILLE	AOGV: 979660.44 \pm .03 mgal
Station number: 52-C-1	Bouguer value: -82.52 mgal
Quadrangle: Hillsville 7.5	Free air value: 4.96 mgal
BM designation: K 43 1926	Latitude: 36°45'58"N
Elevation of BM: 2564.933 ft	Longitude: 80°44'12"W
Elevation of meter: 2564.933 ft	Date base established: 3/24/71

Station description: *Carroll County Courthouse*, on the NE side of U. S. Highway 52 (Main Street), at its intersection with Cherry Street in Hillsville, over BM in top of the stone base of the second concrete column at the south end of the courthouse.

Station name: LANCASTER	AOGV: 979969.58 \pm .02 mgal
Station number: 145-C-1	Bouguer value: -9.04 mgal
Quadrangle: Lancaster 7.5	Free air value: -6.03 mgal
BM designation: H 270 1942	Latitude: 37°46'10"N
Elevation of BM: 88.619 ft	Longitude: 76°27'52"W
Elevation of meter: 88.519 ft	Date base established: 3/17/71

Station description: *Lancaster County Courthouse*, off the south side of State Highway 3, about 0.1 mile east of the courthouse in Lancaster, beside BM at the NE corner of a Civil War Monument.

Station name: LEESBURG	AOGV: 980087.26 \pm .02 mgal
Station number: 215-D-2	Bouguer value: 8.27 mgal
Quadrangle: Leesburg 7.5	Free air value: 20.48 mgal
BM designation: S 91, Reset 1950	Latitude: 39°05'47"N
Elevation of BM: 357.886 ft	Longitude: 77°34'50"W
Elevation of meter: 357.886 ft	Date base established: 3/23/71

Station description: About 2 miles south of Leesburg, off the west side of U. S. Highway 15 and just south of the entrance to Leesburg Country Club, at private road to "Linden Hill," on BM east of board fence.

Station name: LEXINGTON	AOGV: 979862.50 \pm .01 mgal
Station number: 157-C-2	Bouguer value: -59.46 mgal
Quadrangle: Lexington 7.5	Free air value: -23.44 mgal
BM designation: L 348 1958	Latitude: 37°47'06"N
Elevation of BM: 1059.647 ft	Longitude: 79°26'43"W
Elevation of meter: 1056.147 ft	Date base established: 3/11/71

Station description: *Lexington Post Office*, on the SW side of U. S. Highway 60 (Nelson Street) at its intersection with Lee Avenue in Lexington, on the concrete terrace directly below BM set vertically in the SE brick wall near the SW corner of building.

Station name: MARION	AOGV: 979690.95 \pm .03 mgal
Station number: 56-D-2	Bouguer value: -79.51 mgal
Quadrangle: Marion 7.5	Free air value: -4.28 mgal
BM designation: Marion Azi 1958	Latitude: 36°50'07"N
Elevation of BM: 2205.914 ft	Longitude: 81°30'49"W
Elevation of meter: 2205.914 ft	Date base established: 3/30/71

Station description: *Southwestern State Hospital*, in Marion, off the SW side of the entrance road to the hospital, about 200 feet SE of its intersection with Main Street, on BM near lamp post.

Station name: MARTINSVILLE	AOGV: 979781.60 \pm .02 mgal
Station number: 17-A-1	Bouguer value: -47.82 mgal
Quadrangle: Martinsville East 7.5	Free air value: -13.23 mgal
BM designation: PTS 37 W 1924	Latitude: 36°41'27"N
VA R 25 (destroyed)	
Elevation of BM: 1014.243 ft	Longitude: 79°52'25"W
Elevation of meter: 1014.243 ft	Date base established: 5/28/70

Station description: *Martinsville Post Office*, at the intersection of Church Street (State Highway 57) and Bridge Street (State Highway 108) in Martinsville, on former location of BM on top of the east stone portico at the NE entrance.

Station name: MELFA	AOGV: 979958.78 \pm .03 mgal
Station number: 120-B-1	Bouguer value: -11.62 mgal
Quadrangle: Accomac 7.5	Free air value: -9.89 mgal
BM designation: R 38 1929,	Latitude: 37°38'58"N
Reset 1962	
Elevation of BM: 50.774 ft	Longitude: 75°44'30"W
Elevation of meter: 50.774 ft	Date base established: 5/7/70

Station description: Off the north side of State Road 626, about 100 yards east of its intersection with the Pennsylvanian Railroad crossing in Melfa, at the former brick post office building, on BM 4 feet SE of the south corner of building.

Station name: MONTEREY	AOGV: 979795.33 \pm .02 mgal
Station number: 191-A-2	Bouguer value: -72.10 mgal
Quadrangle: Monterey 7.5	Free air value: 26.17 mgal
BM designation: N 58 1934	Latitude: 38°24'43"N
Elevation of BM: 2881.421 ft	Longitude: 79°34'45"W
Elevation of meter: 2881.421 ft	Date base established: 12/30/70

Station description: On the north side of U. S. Highway 250, just east of its intersection with State Highway 220 in Monterey, on BM about 70 feet east of the corner of the Methodist Church.

Station name: NORFOLK A. P.	AOGV: 979877.97 \pm .02 mgal
Station number: 34-B-1	Bouguer value: -28.39 mgal
Quadrangle: Little Creek 7.5	Free air value: -27.51 mgal
BM designation: None	Latitude: 36°53'43"N
Elevation of BM: None	Longitude: 76°12'17"W
Elevation of meter: 26.0 ft	Date base established: 1/13/70

Station description: *Norfolk Municipal Airport*, on concrete walk directly in front of the double-door entrance on the north side of the terminal building, about 1 foot inside the curb line.

Station name: NORFOLK DOCK 1	AOGV: 979873.34 \pm .02 mgal
Station number: 35-D-1	Bouguer value: -30.61 mgal
Quadrangle: Norfolk South 7.5	Free air value: -30.44 mgal
BM designation: None	Latitude: 36°51'11"N
Elevation of BM: None	Longitude: 76°17'54"W
Elevation of meter: 5.0 ft	Date base established: 1/13/70

Station description: At the U. S. Dept. of Commerce, Norfolk Regional Office Building, adjacent to the door of the warehouse in the front parking area, over a chisled square in concrete, 3.5 feet east of the east wall of the warehouse and 0.5 foot south of the supporting wall for the loading well.

Station name: NORFOLK DOCK 3	AOGV: 979873.21 \pm .02 mgal
Station number: 35-D-2	Bouguer value: -30.73 mgal
Quadrangle: Norfolk South 7.5	Free air value: -30.56 mgal
BM designation: Bole 2 1961	Latitude: 36°51'10"N
Elevation of BM: 5.0 ft	Longitude: 76°17'55"W
Elevation of meter: 5.0 ft	Date base established: 1/13/70

Station description: At the U. S. Dept. of Commerce, Norfolk Regional Office Building, in the dock area, over reference mark near bollard approximately 150 feet south of the SW corner of the warehouse and 2.5 feet SW of the center of bollard.

Station name: NORTON	AOGV: 979725.87 \pm .03 mgal
Station number: 60-B-1	Bouguer value: -57.10 mgal
Quadrangle: Norton 7.5	Free air value: 15.94 mgal
BM designation: Y 39 1934	Latitude: 36°56'06"N
Elevation of BM: 2141.311 ft	Longitude: 82°37'44"W
Elevation of meter: 2141.311 ft	Date base established: 4/14/71

Station description: *Norton Post Office*, on 7th Street NW in Norton, about one block west of its intersection with U. S. Highway 23, over BM in top of the stone base for a light pole on the north side of the entrance steps.

Station name: OCEAN VIEW	AOGV: 979887.82 \pm .02 mgal
Station number: 35-A-1	Bouguer value: -24.49 mgal
Quadrangle: Norfolk North 7.5	Free air value: -24.05 mgal
BM designation: B 310 1952	Latitude: 36°57'18"N
Elevation of BM: 15.948 ft	Longitude: 76°15'11"W
Elevation of meter: 12.865 ft	Date base established: 1/13/70

Station description: At Ocean View, about 0.2 mile NW along U. S. Highway 60 from its intersection with State Highway 170, on sidewalk directly below BM set vertically in NE face of the north corner of the Golden Gate Palace building.

Station name: PAMPLIN	AOGV: 979910.82 \pm .02 mgal
Station number: None	Bouguer value: 0.5 mgal
Quadrangle: Pamplin 7.5	Free air value: 17.3 mgal
BM designation: None	Latitude: 37°15'44"N
Elevation of BM: None	Longitude: 78°40'55"W
Elevation of meter: 491 ft	Date base established: 8/28/69

Station description: *Pamplin City Post Office*, off the south side of State Road 1102 in Pamplin City, on top of the concrete step of the porch, 3 feet NE of the post office entrance.

Station name: PEARISBURG	AOGV: 979768.78 \pm .02 mgal
Station number: 112-C-1	Bouguer value: -68.38 mgal
Quadrangle: Pearisburg 7.5	Free air value: -6.83 mgal
BM designation: TT 110 D 1930	Latitude: 37°19'36"N
Elevation of BM: 1804.403 ft	Longitude: 80°44'06"W
Elevation of meter: 1804.403 ft	Date base established: 3/25/71

Station description: *Giles County Courthouse*, off the north side of U. S. Highway 460 at its intersection with State Highway 100 in Pearisburg, over BM in top of the concrete steps, 7 feet west of the entrance and 3 feet east of the south end of step.

Station name: PENNINGTON GAP	AOGV: 979760.03 \pm .03 mgal
Station number: 62-D-1	Bouguer value: -53.28 mgal
Quadrangle: Pennington Gap 7.5	Free air value: -6.10 mgal
BM designation: Ton 1963	Latitude: 36°45'38"N
Elevation of BM: 1383.422 ft	Longitude: 83°00'44"W
Elevation of meter: 1383.422 ft	Date base established: 3/31/71

Station description: 0.1 mile east along U. S. Highway 58 Alt. from its junction with U. S. highways 58 and 421 in Pennington Gap, over BM in rock outcrop, about 68 feet north of the center line of 58 Alt., 30 feet east of a fence around a cemetery.

Station name: RICHMOND	AOGV: 979952.35 \pm .02 mgal
Station number: 126-D-1	Bouguer value: 1.55 mgal
Quadrangle: Seven Pines 7.5	Free air value: 7.42 mgal
BM designation: None	Latitude: 37°30'28"N
Elevation of BM: None	Longitude: 77°19'57"W
Elevation of meter: 172.01 ft	Date base established: 1/13/70

Station description: *Richmond Municipal Airport*, on floor in front of a large curved bank of windows in the SW corner of the terminal building waiting room.

Station name: SALEM	AOGV: 979803.95 \pm .02 mgal
Station number: 110-D-2	Bouguer value: -73.00 mgal
Quadrangle: Salem 7.5	Free air value: -35.58 mgal
BM designation: Salem Azi 1934	Latitude: 37°17'48"N
Elevation of BM: 1097.173 ft	Longitude: 80°03'22"W
Elevation of meter: 1097.173 ft	Date base established: 4/3/71

Station description: At the north end of the gymnasium building at Roanoke College in Salem, over BM in concrete retaining wall, 14.5 feet north of the center entrance and 3 feet east of the east end of an iron pipe banister.

Station name: SOUTH BOSTON	AOGV: 979875.12 \pm .01 mgal
Station number: 13-B-2	Bouguer value: 8.63 mgal
Quadrangle: South Boston 7.5	Free air value: 22.52 mgal
BM designation: South Boston 1934	Latitude: 36°41'55"N
Elevation of BM: 407.19 ft	Longitude: 78°54'04"W
Elevation of meter: 407.19 ft	Date base established: 8/28/69

Station description: *South Boston Post Office*, off the NE side of Main Street, at its intersection with Broad Street in South Boston, over BM in top of the concrete portico on the SE side of building and entrance.

Station name: STAUNTON	AOGV: 979873.84 \pm .02 mgal
Station number: 176-A-3	Bouguer value: -60.28 mgal
Quadrangle: Staunton 7.5	Free air value: -13.06 mgal
BM designation: Staunton 1934	Latitude: 38°08'55"N
Elevation of BM: 1384.380 ft	Longitude: 79°04'21"W
Elevation of meter: 1384.380 ft	Date base established: 12/30/70

Station description: *Augusta County Courthouse*, off the north side of Johnson Street, at its intersection with U. S. Highway 11 Alt. South in Staunton, on BM in front lawn, about 50 feet SE of the south corner of courthouse, under a large boxwood shrub.

Station name: ST. PAUL	AOGV: 979754.34 \pm .03 mgal
Station number: 59-A-1	Bouguer value: -65.13 mgal
Quadrangle: St. Paul 7.5	Free air value: -14.38 mgal
BM designation: B 25 1929	Latitude: 36°54'15"N
Elevation of BM: 1488.022 ft	Longitude: 82°18'41"W
Elevation of meter: 1488.022 ft	Date base established: 4/14/71

Station description: On the north side of Fourth Avenue at its intersection with Russell Street in St. Paul, over BM in top of concrete ledge of the west basement window on the south side of the former National Bank building.

Station name: STRASBURG	AOGV: 979987.79 \pm .02 mgal
Station number: 209-A-6	Bouguer value: -61.38 mgal
Quadrangle: Strasburg 7.5	Free air value: -37.10 mgal
BM designation: Hupps 1957	Latitude: 38°59'56"N
Elevation of BM: 711.829 ft	Longitude: 78°20'56"W
Elevation of meter: 711.829 ft	Date base established: 7/24/70

Station description: About 1.3 miles NE of Strasburg, off the SE side of U. S. Highway 11, just south of the entrance to Crystal Caverns, on BM across the highway from a historical monument.

Station name: SUFFOLK	AOGV: 979877.38 \pm .02 mgal
Station number: 4-A-1	Bouguer value: -13.00 mgal
Quadrangle: Suffolk 7.5	Free air value: -11.17 mgal
BM designation: R 27 1932	Latitude: 36°43'47"N
Elevation of BM: 53.550 ft	Longitude: 76°34'58"W
Elevation of meter: 53.550 ft	Date base established: 4/9/71

Station description: Off the east side of Main Street at its intersection with Bank Street in Suffolk, at former post office building, over BM in top of the SW corner of the concrete base of the north column of the main entrance to building.

Station name: TAPPAHANNOCK	AOGV: 980014.29±.02 mgal
Station number: 147-A-1	Bouguer value: 17.79 mgal
Quadrangle: Tappahannock 7.5	Free air value: 18.55 mgal
BM designation: X 47 1934	Latitude: 37°55'43"N
Elevation of BM: 22.507 ft	Longitude: 76°51'40"W
Elevation of meter: 22.250 ft	Date base established: 3/17/71

Station description: *First Baptist Church*, at the intersection of U. S. highways 17 and 360 in Tappahannock, on concrete walk at the west entrance door of the church, 3 feet north of the center of door and 1 foot west of wall. Station is about 70 feet SE of BM.

Station name: WALLOPS	AOGV: 979972.45±.03 mgal
Station number: 141-B-1	Bouguer value: -23.79 mgal
Quadrangle: Chincoteague West 7.5	Free air value: -22.69 mgal
BM designation: M 421 1963	Latitude: 37°56'04"N
Elevation of BM: 35.092 ft	Longitude: 75°28'26"W
Elevation of meter: 35.092 ft	Date base established: 5/7/70

Station description: *Wallops Station*, on the north side of the main entrance road, about 0.3 mile east of the main gate, over BM in the SW corner of concrete slab for manhole.

Station name: WARRENTON	AOGV: 980042.24±.02 mgal
Station number: 196-A-1	Bouguer value: 16.12 mgal
Quadrangle: Warrenton 7.5	Free air value: 37.77 mgal
BM designation: Highland Ertl 1959	Latitude: 38°41'06"N
Elevation of BM: 634.858 ft	Longitude: 77°48'17"W
Elevation of meter: 634.858 ft	Date base established: 3/23/71

Station description: About 2.0 miles south of Warrenton, approximately 0.25 mile north of the intersection of State roads 744 and 684, 40 feet east of the center of State Road 744 on BM in front lawn of brick home with steel fencing, 40 feet west of the NW corner of house and 18 feet south of center of driveway.

Station name: WILLIAMSBURG	AOGV: 979927.61±.02 mgal
Station number: 96-C-1	Bouguer value: -8.70 mgal
Quadrangle: Williamsburg 7.5	Free air value: -6.05 mgal
BM designation: Z 261 1942	Latitude: 37°16'35"N
Elevation of BM: 81.519 ft	Longitude: 76°42'31"W
Elevation of meter: 77.653 ft	Date base established: 1/13/70

Station description: *Chesapeake and Ohio Railway Station*, at the northern terminus of Boundary Street in Williamsburg, on brick walk directly below BM set vertically in the NE wall, 1 foot NE of the east corner of building.

Station name: WINCHESTER	AOGV: 979998.22 \pm .03 mgal
Station number: 217-B-1	Bouguer value: -62.35 mgal
Quadrangle: Winchester 7.5	Free air value: -36.58 mgal
BM designation: J 336 1957	Latitude: 39°09'28"N
Elevation of BM: 755.576 ft	Longitude: 78°11'10"W
Elevation of meter: 755.576 ft	Date base established: 8/12/70

Station Description: *Virginia Polytechnic Institute and State University Research Laboratory*, off the east side of U. S. Highway 11 in Winchester, on BM in center of front lawn about 80 feet west of the west edge of the driveway in front of the building.

Station name: WYTHEVILLE	AOGV: 979700.86 \pm .03 mgal
Station number: 54-A-1	Bouguer value: -73.91 mgal
Quadrangle: Wytheville 7.5	Free air value: 4.50 mgal
BM designation: K 28 1926	Latitude: 36°56'58"N
Elevation of BM: 2298.896 ft	Longitude: 81°05'00"W
Elevation of meter: 2298.896 ft	Date base established: 3/24/71

Station description: *Wytheville Post Office*, off the NE side of Church Street at its intersection with U. S. highways 11 and 52 (Main Street) in Wytheville, over BM in west corner of the concrete retaining wall for the second basement window from the west corner of building.